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Q-18
Advanced System Development
Fact Sheet

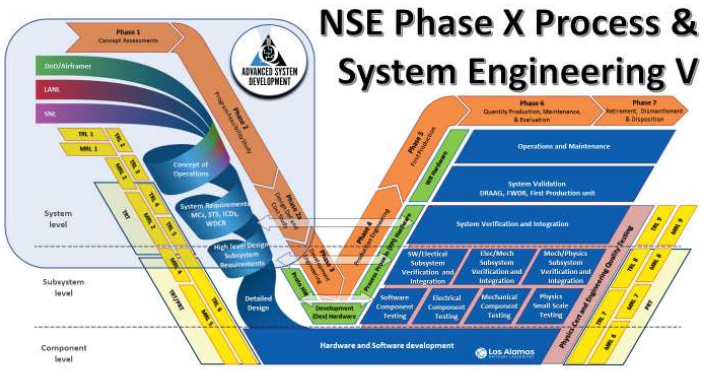
Los Alamos NATIONAL LABORATORY

Mission

Q-18 provides Systems and Design Engineering for Future Weapons Systems and Technology up to Phase 3 or 6.3 with emphasis on improved performance, safety, produceability and agility of the future stockpile. The group regulars engages and partners with DoD customers, NNSA as well as other divisions across the LANL campus including to complete its mission.

The group is forward leaning and provides Future System and System Agnostic Design and System Engineering support to a wide range of experiments from internally fielded technology tests to hydrodynamic and subcritical experiments including fabrication for small component level to full scale prototypes and test articles, test article assembly, and mechanical and electrical design.

Q-18 also manages the Interagency Peer Reviews (IPRs) for Lawrence Livermore National Laboratory Systems such as the W80-4 and W87-1.



Core Competencies

Q-18's unique and core competency is the highly experienced members of the group that have extensive knowledge and execution skills in one or more of the following:

- **Nuclear Weapons System Engineering and Design** – Personnel that have worked on future system design concepts as well as Life Extension Programs (LEPs) including the W93, B61-12, W88 ALT370, W76-1, the Reliable Replacement Warhead (RRW), the 120 Study, the Long Range Stand Off (LSRO) study, the Navy 2.0 study, Hard and Deeply Buried Targets (HDBT) and many others.
- **Future System Effectiveness –** Personnel and capabilities that can assess the effectiveness of future weapons concepts in a rapid and collaborative way with the DoD
- **Program Management** – Program Managers and Technical Personnel that have can manage large cross LANL programs like Interagency Peer Reviews.
- **Technology Maturation and Material Development and Insertion -** Personnel that have explored or fielded new technologies and materials in LEPs or other related projects like Demonstrators.
- **System Qualification & Test Execution** – Personnel that have been the system engineers for major qualification or certification tests for LEPs and other projects as well as personnel that have been Weapons Assembly Engineers as well as Test Engineers.
- **Future System Nuclear Safety –** Personnel that have extensive experience with Safety Basis and Weapons System Safety assessments for new weapons systems.

ADVANCED SYSTEM DEVELOPMENT

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NNSA National Nuclear Security Administration